

COURSE TITLE: DESIGN AND GRAPHIC COMMUNICATION
COURSE CODE: DTE 112
LECTURER: MRS MARTHA DANSO
SEMESTER: ONE
LEVEL: 100

COURSE DESCRIPTION

Objectives:

The course is to expose students to the principles of designing and making. Thus, it is to guide students to use a wide range of experiences, knowledge and skills to find the best solutions to problems. The students are expected to demonstrate graphical and other communication skills necessary to give, in a clear and appropriate form, information about a project to be designed and made.

AREAS OF COVERAGE

WEEK	TOPIC	CONTENT / NOTES	ASSIGNMENT / DATE OF SUBMISSION
1,	Framework for designing.	Explaining designing in broader perspective. Discussing the importance of design. Describing how designs change. Examining some packages and analysing their outlook in an attempt to identifying problems. Outlining the framework of the Design Process.	
2,3	Identification of problems in given situations.	Discussing various problems within varying contexts such as the home, school, hospital and recreational ground. Identifying specific <i>situations</i> within these specified contexts such as the layout of the kitchen, a technical school workshop, the hospital theatre, toddler's play items, library collections. Defining a <i>brief</i> . Explaining points that affect <i>brief</i> statements. Discussing various starting points eg original, improvement or the need for an alteration.	Identify and state various problems within the university community and write design briefs. Submission: week 4
4	Analysing the problem	Outlining and explaining the various elements of designing eg materials, construction. Explaining the term <i>analysis</i> . Posing suitable questions as guidelines for <i>analysing</i> the design elements.	Analyse the identified problem under the various elements of design. Submission: Week 5
5,6	Investigating the problem	Discussing the importance of <i>investigation</i> . Listing various research techniques and tools to be used. Detailing the main research tools (questionnaire, interview)	Investigate the analysed items under the various elements of design. Submission: week 8
7	Writing specifications	Defining and explaining the term <i>specification</i> in design. Discussing the setting of constraints or limits in specifying. Checking of specifications against the <i>analysis</i> .	Specify the investigated items in the design elements. Submission: week 9

8,9	Generation of possible solutions and development of selected solution	Discussing possible means of solving the problem through three-dimensional sketches. Annotating the sketched ideas and selecting the most suitable idea for <i>development</i> . Considering the purpose, ergonomics, safety, skills, aesthetics, cultural factors, taste, opinions etc. in <i>developing ideas</i> .	Neatly generate at least three possible solutions for the designed project. Submission: week 10
10	Rendering	Defining and explaining the term <i>rendering</i> in design. Discussing various rendering techniques such as shading and colouring.	<i>Class quiz.</i> Render the possible solutions with appropriate rendering techniques. .
11, 12	Working drawing	Discussing drawing details such as Detailed Drawing, Cutting list & costing, operational sequence, Exploded View and Orthographic Projections.	Prepare well dimensioned working drawings. Submission: week 14
13	Modelling: Making the artefact	Analysing various modelling materials and techniques. Employing these techniques in modelling designed projects.	Model projects. Week 14
14	Testing and evaluation	Testing modelled materials and analysing the strengths and weaknesses	Test modelled materials Week 14
15, 16	Submission of models, folios and end-of semester exam		Submit portfolios and modelled projects.

Methodology

The students are guided to identify problems, research practically towards their solution and submit recorded reports in portfolios as well as the practical project. Hence, the design process must be followed critically.

MODE OF ASSESSMENT

Continuous assessment: 40%. This is accrued from folio, practical project (model or artefact), take home assignments, class tests.

End of semester exam: 60%

References:

Chapman, C. et al (1994), Design and Realisation, London, Lincolnshire County Council.

Dunn, S. (1988), Craft, Design & Technology, London, Unwin Hymen Ltd.

Garatt, J. (1994), Design & Technology, Oxford, Cambridge University Press.